

Fact Sheet



For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on July 10, 2018.

Permit Number: **R30-05300004-2018 (SM01)**

Application Received: **October 12, 2020**

Plant Identification Number: **03-54-053-00004**

Permittee: **Felman Production LLC**

Mailing Address: **4442 Graham Station Road, Letart, WV 25253-8701**

Permit Action Number: *SM01*

Revised: *January 5, 2021*

Physical Location:	New Haven, Mason County, West Virginia
UTM Coordinates:	419.73 km Easting • 4312.468 km Northing • Zone 17
Directions:	Approximately 4 miles east of New Haven adjacent to US Route 33.

Facility Description

Felman Production LLC manufactures manganese, silicon-based ferroalloys, and ferrosilicon and is covered by Standard Industrial Classification (SIC) codes 3313 and 3341. The facility consists of three electric submerged arc furnaces, associated sizing equipment and environmental controls.

This significant modification is to add new operating parameter ranges for demonstrating compliance with the requirements for the shop building opacity set forth in Consent Decree 3:18-cv-01003 and 40 CFR 63 Subpart XXX.

Emissions Summary

There are no changes in emissions associated with this significant modification.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 1,146.25 tons per year of CO; 265.27 tons per year of PM₁₀; 1,203.16 tons per year of SO₂; 878.99 tons per year of VOCs, and 51.37 tons per year of Manganese. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Felman Production LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:

45CSR34	Emission Standards For Hazardous Air Pollutants
45CSR30	Requirements For Operating Permits
40 CFR Part 63, Subpart XXX	Ferroalloys Production: Ferromanganese and Silico-manganese NESHAPs

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
3:18-cv-01003 (Paragraphs 15.h.(1)(d) and 58)	08/03/2018	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

In a letter dated July 29, 2020, pursuant to Paragraph 15(h)(1)(d) of the Consent Decree (CD) Civ. Action No. 3:18-cv-01003, Felman Production, LLC ("Felman") requested that the USEPA and WVDEP approve an alternative monitoring method. The basis for the request and the proposed alternative monitoring method are described below.

As required by Paragraph 15(a) of the CD, Felman installed, calibrated, and verified operation of three (3) flowmeters, which measure the flow from the Tapping Area (#1), Casting Net (#2), and the entire flow going to the bag house (#3), as required by Paragraph 15.a.-h. Felman then installed two (2) more

flowmeters at locations which capture the flow from ducts which vent the furnace hood, as required by Paragraph 15.h.(1); when those flow meters failed, Felman notified EPA and requested approval to rely on the three existing flow meters, as required by Paragraph 15.h.(1)(d).

Since that time, Felman has made additional improvements to its control system. Specifically, in March, 2020, Felman shut down the operations to install a variable frequency drive (“VFD”) to the baghouse fan motors. VFD is a type of adjustable-speed drive used in electro-mechanical drive systems to control AC motor speed and torque by varying motor input frequency and voltage.

With the installation of the VFD to the baghouse fan motors, the control of the volumetric flow by opening or closing the dampers is no longer applicable, because the VFD controls the speed of the fan motor as needed to maintain the flow at the rate that has been set by Felman (205,000 SCFM at the composite flow meter). Therefore, the inlet dampers are now open 100% at all times. This will reduce the wear to the fans and require lower fan motor amperage to provide the required capture. In addition, since the flow is controlled by the VFD, outside factors (such as furnace load, temperature, etc.) are unlikely to affect the flow as much as when flow is controlled by opening and closing the dampers.

Because less energy is needed to run the fan motors with the use of the VFD and the fan amperages are therefore lower, the parameter that had previously been set for fan amps (minimum 295A) no longer applies. At the outset, this parameter is not necessary for compliance with the NESHAP, which would allow Felman to comply based solely on the use of the flow meter on the main vent to the baghouse and by recording the capture system damper positions once per shift. See 40 C.F.R. §63.1626(h)(1)(iii). However, to ensure compliance with the requirements set forth in the Consent Decree and demonstrate the proper operation of the controls Felman has installed, Felman proposed to monitor the following parameters, which settings were derived from the site’s most recent stack test:

Damper Position: minimum 30% (no change from current parameter)
Composite flow meter: 205,000 (-20%) SCFM
Tap hole flow meter: 50,000 (-20%) SCFM
Casting nest flow meter: 60,000 (-20%) SCFM

The parameter settings are the basis of the minimum volumetric flow rates that Felman is required to comply with but it is understood that there are no parameter settings for maximum volumetric flow rates. Also, Felman would no longer monitor fan motor amps, as that parameter is not required to comply with either the NESHAP or the Consent Decree.

Felman believes that continuing to monitor the listed parameters will provide ample assurance that the furnace is operating properly and not contributing to exceedances of any applicable requirements, as required by the CD. Felman therefore requested that EPA and WVDEP approve their use of the three-flow-meter system along with monitoring and recording the damper positions at least once per shift to comply with the CD requirements. Upon termination of the CD, Felman will continue to monitor only the damper position once per shift and continuously monitor the composite flow meter to ensure compliance with 40 C.F.R. §63.1626(h)(1)(iii).

The request for the alternative monitoring was approved in a letter dated September 15, 2020 from the USEPA to Felman. Therefore, in accordance with the above-mentioned letters (i.e., the request from Felman to the USEPA and the reply from the USEPA to Felman) Felman applied for a modification to their Title V permit to incorporate the alternative monitoring parameters into the Title V permit.

The revisions made to R30-05300004-2018 as a result of this modification are as follows:

➤ **Condition 3.2.3.g.1.iii.** – Added the following language:

“To comply with this requirement, the permittee has installed three (3) flow monitoring devices, along with a variable frequency drive (VFD) to control the speed of the fan motor as needed to maintain the required flow at the composite flow meter, allowing the inlet dampers to remain open at 100% at all times. Until the termination of the Consent Decree 3:18-cv-01003, the volumetric flow through each flow meter shall be continuously recorded. On the day of and subsequent to the termination of the Consent Decree 3:18-cv-01003, the volumetric flow through Composite Flow

Meter shall be continuously recorded according to this permit condition 3.2.3.g.1.iii. The capture system damper position shall be recorded once per shift.”

- **Condition 3.3.2.d.2.iii.** – Added the following language:

“To comply with this requirement, the permittee has petitioned the Administrator to reestablish the parameter ranges for the three (3) flow monitoring devices and damper position. The Administrator has approved the permittee's petition to monitor the following meters and parameter ranges until the termination of Consent Decree 3:18-cv-01003:

Damper Position: minimum 30%

Composite flow meter: minimum 205,000 (-20%) SCFM

Tap hole flow meter: minimum 50,000 (-20%) SCFM

Casting nest flow meter: minimum 60,000 (-20%) SCFM

Beginning on the day of, and subsequent to the termination of the Consent Decree 3:18-cv-01003, only the damper position and composite flow meter shall be monitored according to paragraph 3.2.3.g.1.iii.”

- The citation of authority for both conditions 3.2.3.g.1.iii. and 3.3.2.d.2.iii. has been revised by adding “, and Consent Decree 3:18-cv-01003, Paragraphs 15(h)(1)(d) and 58”

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: November 17, 2020
Ending Date: December 17, 2020

Point of Contact

All written comments should be addressed to the following individual and office:

Frederick Tipane
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41910
frederick.tipane@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.